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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,696	09/26/2001	Yukihisa Takeuchi	791_075 DIV	2017

25191 7590 11/19/2003

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EXAMINER

KIM, PAUL D

ART UNIT PAPER NUMBER

3729

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/963,696

Applicant(s)

TAKEUCHI ET AL.

Examiner

Paul D Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 4-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/441,914.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is a response to the election of species filed on 10/01/2003.

Election/Restrictions

2. Applicant's election with traverse of Species A, claims 1 and 2, in Paper No. 6 is acknowledged. The traversal is on the ground(s) that the Species A is applied to all of the Species. This is not found persuasive because searches are coextensive between species. However, upon further review, examiner agrees with applicant that claim 3 of Species B will be included in the Species A. The Species are as followed: Species A drawn to Fig. 23 (a) recites a pair of thin plates laminated the outermost layer facing each other. Species B drawn to Fig. 22 (First drawing) recites laminating a thin plate within at least one green sheet having at least one hole formed thereon. Species C drawn to Fig. 32 recites laminating a thin plate with a number of green sheet at least one hole formed thereon. Species D drawn to Fig. 22 recites preparing two laminates A and a laminate B and then laminating A and B together with placing the two laminates A at an outermost layer. Species E drawn to Fig. 28 (a) recites placing a plastic film as an outermost layer on a plurality of green sheet having at least one hole formed thereon. Species F drawn to Fig. 28 (b) recites placing a plastic film as an outermost layer on a green sheet having at least one hole formed thereon.

The requirement is still deemed proper and is therefore **made FINAL**.

3. Claims 4-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or

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linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6.

Information Disclosure Statement

4. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

5. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --A METHOD OF FABRICATING A PIEZOELECTRIC/ELECTROSTRICTIVE DEVICE--.

Claim Objections

7. Claims 1 and 2 are objected to because of the following informalities:

Re. Claim 1: The phrase "a piezoelectric/electrostrictive element" in line 21 should be --the piezoelectric/electrostrictive element--.

The phrase "the outer surface" in line 22 should be --an outer surface--.

Re. Claim 2: The phrase "A method" in line 1 should be --The method--.

The phrase "a ceramic green laminate" in line 2 should be --the ceramic green laminate--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimogawa et al. (US PAT. 6,584,660).

The applied reference has common inventors and an assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e)

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might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Shimogawa et al. teach a process of manufacturing a piezoelectric device comprising steps of: preparing a ceramic green laminate (2) as shown in Fig. 3 comprising a pair of ceramic green sheets as thin plates (21,23) and at least one ceramic green sheet (22) having at least one hole (22a) formed thereon; sintering the ceramic green laminate (col. 5, lines 11-24); forming a piezoelectric/electrostrictive element (3) by a film formation method on the outer surface of the thin plate portion of the ceramic green laminate as shown in Figs. 6 and 7; and cutting the ceramic green laminate with the piezoelectric/electrostrictive element formed thereon shown in Figs. 6 and 7 (col. 10, lines 36-67 and col. 16, lines 14-22).

As per claims 2 and 3 the pair of ceramic green sheets are laminated on the outer most layer facing each other as shown in Fig. 3.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Busse et al. (US PAT. 5,359,760), Kondo (US PAT. 5,252,883), and Takeuchi et al. (US PAT. 5,210,455) are cited to further show the state of the art with respect to method of manufacturing a piezoelectric device.


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Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D Kim whose telephone number is 703-308-8356. The examiner can normally be reached on Tuesday-Friday between 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5648.


Paul D. Kim
Paul D Kim
Examiner
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